Attachment 9 — Stormwater Flood Management Grant Proposal Littlerock Reservoir Sediment Removal Project Program Preferences

Attachment 9 consists of the following items:

- ✓ Program Preferences. Attachment 9 contains detailed information on how the proposal will meet the program preferences described in the IRWM Guidelines.

Program Preferences Met by Proposal

The Littlerock Reservoir Sediment Removal Project (LRSR Project) meets eight out of eight Program Preferences identified in the Proposition 84 & Proposition 1E IRWM Guidelines. This attachment details the specific Program Preferences that are met by the LRSR Project, the certainty that the Proposal will meet the Program Preferences, and the breadth and magnitude to which the Program Preferences will be met. Table 9-1, below identifies the Program Preferences which the LRSR Project will assist in meeting.

Table 9-1: Program Preferences Met by Proposal

Project	Program Preferences							
	(1) Includes Regional Projects or Programs	(2) Integrates Projects within a Hydrologic Region	(3) Resolves Significant Water-Related Conflicts Within Region	(4) Contribute to Attainment of one or more CALFED objectives	(5) Addresses Critical Water Supply or Quality Needs of DAC	(6) Integrates Water Manage-ment with Land Use Planning	(7) Eligible for SWFM funding	(8) Addresses Statewide Priorities
Littlerock Reservoir Sediment Removal Project	✓	✓	✓	✓	✓	✓	✓	✓

Description of the how the LRSR Project Meets Program Preferences:

(1) Includes regional projects and programs:

- Project was identified as a high priority project that helps to meet multiple regional objectives developed through a stakeholder process in the Antelope Valley IRWM Plan (see Attachment 3 - Work Plan)
- Project provides regional water supply benefits by offsetting the use of imported SWP water that could be used for other beneficial purposes in the Region

(2) Integrates programs and projects within a hydrologic region:

- Project provides water supply benefits to the Lahontan Hydrologic Region by offsetting the use of imported SWP water that could be used for other beneficial purposes in the Lahontan Hydrologic Region
- Project integrates with other projects that seek such as the Littlerock Creek In-River Spreading Grounds and the Littlerock Creek Groundwater Recharge and Recovery Project (see Attachment 3 – Work Plan)

(3) Resolves significant water-related conflicts within the Antelope Valley IRWM region

- Project will help to support the outcome of the ongoing groundwater adjudication effort in the Antelope Valley by offsetting imported water demands and making that imported water available for other beneficial purposes such as groundwater recharge. The availability of additional groundwater recharge supplies makes the success of Regional groundwater management more likely.

(4) Contribute to the attainment of CALFED objectives:

- Project increases the flexibility of water systems at the state, federal, and local level through improvements in local water supply storage and management
- Project decreases demand for SWP water supplies and potentially leaves the offset of demands as in stream flows in the Bay-Delta

(5) Addresses critical water supply or water quality needs of DAC:

- Project addresses critical water supply needs of DAC areas located north of Lake Palmdale and eastern most portion of the PWD service area by providing more reliability through the use of local supplies (see Figure 9-1).
- Project addresses critical water quality needs of DAC areas located within the service area of PWD by reducing constituent concentrations influent to the Leslie O. Carter water treatment plant (capacity of 35 million gallons per day), which serves the DAC areas listed above.

(6) Integrates water management with land use planning:

- Project reduces the impacts of downstream flooding on various land uses (e.g., residential, transportation, and agriculture) by implementing sediment removal in combination with forest management practices in a partnership between PWD and the USDA Forest Service, ANF together to collaborate on the LRSR Project which combines a water supply project with flood protection, habitat protection, and water quality improvements.

(7) The Project is eligible for Stormwater Flood Management (SWFM) funding because:

- The project is not part of the State Plan Flood Control (SPFC);
- The project will help manage stormwater runoff to reduce flood damage;
- The project yields multiple benefits including water supply, water quality, ecosystem protection, GHG emission reduction and flood control benefits; and
- The project is consistent with the applicable Regional Water Quality Control Plan[1] to manage stormwater runoff to reduce flood damages.

[1] Water Quality Control Plan for the Lahontan Region (Basin Plan);
http://www.waterboards.ca.gov/rwqcb6/water_issues/programs/basin_plan/references.shtml

(8) The Project addresses Statewide Priorities as detailed in Table 9-2 below.

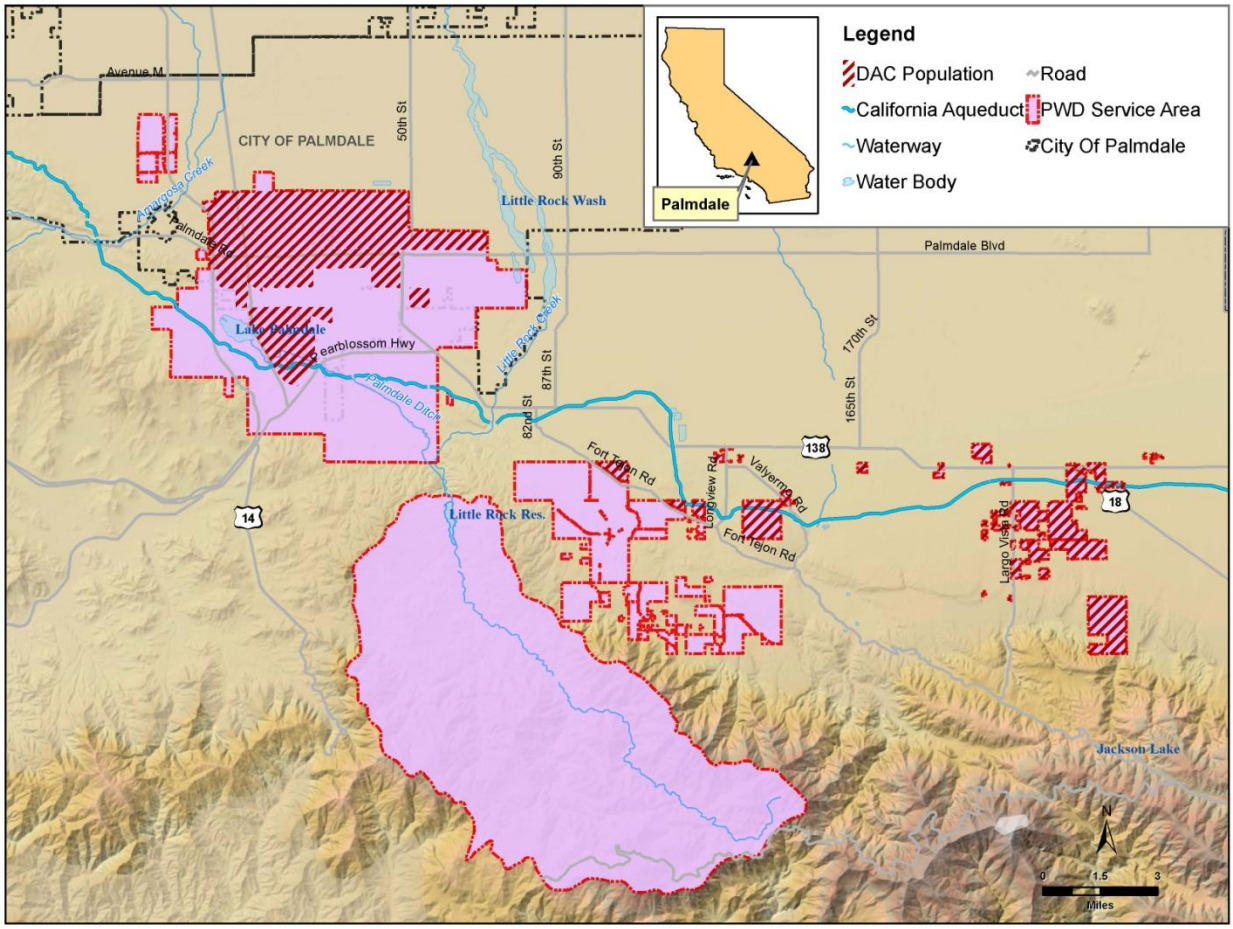
Table 9-2: Address Statewide Priorities

Project	Assist in Meeting Statewide Priorities							
	Drought Prepared-ness	Use and Reuse Water More Efficiently	Climate Change Response Actions	Expand Environ-mental Steward-ship	Practice Integrated Flood Manage-ment	Protect Surface Water Quality and Ground-water Quality	Improve Tribal Water and Natural Resources	Ensure Equitable Distribu-tion of Benefits
Littlerock Reservoir Sediment Removal Project	✓	✓	✓	✓	✓	✓		✓

The LRSR Project addresses seven Statewide Priorities:

- **Drought Preparedness -** by storing additional supply water in the Reservoir for drought years that impact the Bay-Delta, when the SWP cannot provide quantities required for the Region
- **Use and Reuse Water More Efficiently -** by storing additional water in the Reservoir and increasing water supply reliability through the use of additional local water supplies in place of imported SWP supply
- **Climate Change Response Actions** – by reducing green house gas (GHG) emissions through the offset of higher-energy demand imported water with lower-energy demand local surface water
- **Expand Environmental Stewardship** – by constructing an in stream grade control structure upstream of the Littlerock Reservoir to prevent sediment loss and head cutting of the Littlerock Stream Channel which is vital habitat for the federally endangered arroyo toad (*Bufo californicus*)
- **Practice Integrated Flood Management** – by restoring and maintaining water supply and flood storage capacity at Littlerock Reservoir
- **Protect Surface Water Quality and Groundwater Quality** - by offsetting imported water which reduces the loading of salts/nutrients imported from outside the Antelope Valley Region
- **Ensure Equitable Distribution of Benefits** - by providing water supply, flood protection, water quality, habitat protection, and other benefits to customers inside the PWD service area, these benefits will be distributed to over 195,000 people after the project startup date (2019); approximately 20% of PWD's service area is composed of disadvantaged communities (DACs), mainly in the eastern portions and north of Lake Palmdale (See Figure 9-1).

Figure 9-1: DACs within the PWD Service Area



Certainty that the Proposal will meet Program Preferences

The LRSR Project has undergone extreme scrutiny during the IRWMP stakeholder-led process and therefore, there is great certainty the project selected for this proposal will meet the Program Preferences. The project will meet criteria designed to address Proposition 1E requirements and achieve multiple IRWM Plan objectives (See Attachment 3 - Work Plan). The project has the ability to achieve its required benefits, is technically feasible, has secured 50% of matching funds, and is implementable within a reasonable length of time after the grant award date (see Attachment 5 - Schedule). Additionally, the Angeles National Forest (ANF), U.S. Department of Agriculture Forest Service (USFS) and Littlerock Creek Irrigation District (LCID) have given their full support and have expressed their willingness to cooperated with the LRSR project to ensure the project meets the Program Preferences.

The existing data and studies that demonstrate the project is technically sound and likely to be implemented are listed below in Table 9-3.

Table 9-3: Existing Data and Studies

Project	Existing Data and Studies
Littlerock Reservoir Sediment Removal Project	• Littlerock Reservoir Hydrologic and Sediment Transport Analysis Technical Report, June 2005 • Flood Insurance Rate Maps (FIRM), Community: Palmdale, City/Los Angeles CO, Panel #'s: 06037C0694F, 06037C0711F, 06037C0442F, and 06037C0450F. Effective Date: September 26, 2008. • Flood Insurance Study – Los Angeles County, CA. September 26,2008 • USDA/NRCS - National Geospatial Management Center. National Elevation Data 10 meter or better. Process Date: 09/2011. • Anaverde Flood Hydrograph – Upper Anaverde Watershed Detention Storage Alternatives, City of Palmdale, prepared by URS, 2002 • Summary of LACDPW Observed Flooding Location in the Antelope Valley, compiled by LACDPW, January 2013 • Littlerock Reservoir Sediment Removal Project Draft Biological Resources Technical Report, October 2012. • DRAFT Littlerock Reservoir Sediment Removal Project Biological Resources Technical Report, October 2012 • DRAFT Littlerock Reservoir Sediment Removal Project 1st Administrative Environmental Impact Report/Environmental Impact Statement (EIR/EIS), April 2007 • Geotechnical Investigation, Data Collection, and Survey Memoranda was prepared, July 2007 • Preliminary Dredging/Slurry Feasibility Analysis for Excavation of Littlerock Reservoir, September 2007 • Littlerock Reservoir Hydrologic and Sediment Transport Analysis Technical Report, June 2005

Breadth and Magnitude that Project will meet Program Preferences

The breadth and magnitude to which the Program Preferences will be met by the Project are described in detail in *Attachment 3 - Work Plan*. The Antelope Valley IRWM Plan articulated three goals, all of which the LRSR Project will meet. The goals in the Antelope Valley IRWM Plan the LRSR Project will help meet are as follows:

- Municipal and Industrial (M&I) purveyors reliably provide the quantity and the quality of water that will be demanded by a growing population
- Satisfy agricultural users' demand for reliable irrigation water supplies at a reasonable cost
- Protect and enhance current water resources (including groundwater) and the other environmental resources within the Antelope Valley Region

Table 9-4 provides both quantitative and qualitative data on the breadth and magnitude to which the LRSR Project will meet Program Preferences.

Table 9-4: Breadth/Magnitude to which Program Preferences will be Met

Project	Breadth/Magnitude to Which Program Preferences Will Be Met
Littlerock Reservoir Sediment Removal Project	• Project will restore 560 AFY of local surface water supply storage and flood control capacity. Over the 50 year life span of the project it will provide a total cumulative volume of 28,000 AF of local water supplies to PWD customers. • Project will provide debris and sediment control measures • Project will avoid 4,835 metric tons of salts imported from outside the Region over the 50-year lifespan of the project • Project will reduce energy use by 84 million kWh over the 50-year life span of the project • Project will avoid 27,600 metric tons of CO_2 equivalents emitted over the 50-year life span of the project